



06-01-05

DFW

Docket No.: 213.1152-CIP

UNITED STATES PATENT & TRADEMARK OFFICE

| | |
|-------------------|-----------------------------------------------|
| Examiner: Unknown | Art Unit: 1653 |
| Applicant: | Hong Zhao, et al. |
| Serial No.: | 10/822,205 |
| Filed | April 9, 2004 |
| For: | POLYMERIC OLIGONUCLEOTIDE PRODRUGS |

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

May 31, 2005

Sir:

Pursuant to M.P.E.P. §609 and 37 C.F.R. §§1.56, 1.97-1.99, Applicants herewith submit form PTO-1449 (3 pages). It is noted that the Applicant have not enclosed a copy of the U.S. patent cited on form PTO-1449.

This submission does not represent that a search has been made or that no better art exists. While the term "references" is used in citing the documents called to the Examiner's attention herein, Applicants do not make any admission that each or all of them are "prior art" references within the meaning of the statutory and case law.

Applicants reserve the right to contend, where appropriate, that a patent asserted against any claim of the present application is not prior art under the facts and the law.

Applicants also reserve the right to present appropriate arguments and/or evidence to establish patentability over the references, should one or more of the references be applied against the claims of the present application.

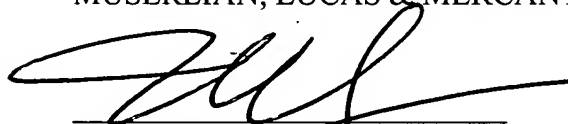
Applicants request that the Examiner independently determine those items which the Examiner would consider the most pertinent of all the references cited herein.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits. Accordingly, this document complies with the requirements of 37 C.F.R. §1.97(b). It is respectfully requested that the references cited in the accompanying PTO-1449 form be considered and made of record.

No fee is believed to be due. Any deficiency or overpayment concerning this document should be charged or credited to Deposit Account No. 02-2275.

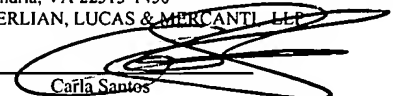
Respectfully submitted,

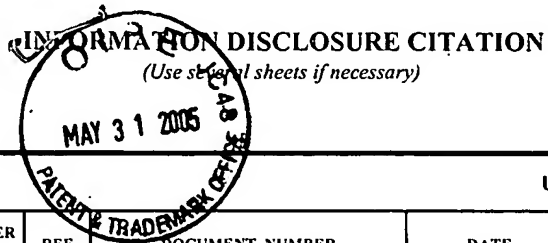
MUSERLIAN, LUCAS & MERCANTI, LLP



Michael N. Mercanti
Registration No. 33,966

MUSERLIAN, LUCAS & MERCANTI, LLP
475 Park Avenue South
New York, NY 10016
Phone: 212-661-8000
Fax: 212-661-8002

"Express Mail" mailing label no. EV 733 806 270 US
Date of Deposit May 31, 2005
I hereby certify that this correspondence and/or fee
is being deposited with the United States Postal Service
"Express Mail Post Office to Addressee" service under 37
CFR 1.10 on the date indicated above, in an envelope
addressed to: "Commissioner for Patents, P.O. Box 1450
Alexandria, VA 22313-1450
MUSERLIAN, LUCAS & MERCANTI, LLP
By: 
Carla Santos



| | | |
|------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------|
| INFORMATION DISCLOSURE CITATION (Use separate sheets if necessary) | Docket Number (Optional) 213.1152-CIP | Application Number 10/822,205 |
| | Applicant(s) Hong Zhao, et al. | |
| | Filing Date April 9, 2004 | Group Art Unit 1653 |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|-----|-----------------|------------|---------------|-------|----------|----------------------------|
| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
| | A1 | 4,904,582 | 02/27/1990 | Tullis | | | 06/11/1987 |
| | A2 | 5,706,218 | 12/30/1997 | Urdea, et al. | | | 04/13/1995 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| U.S. PATENT APPLICATION PUBLICATIONS | | | | | | | |
|--------------------------------------|-----|-----------------|------------|------------------|-------|----------|----------------------------|
| *EXAMINER INITIAL | REF | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
| | A3 | 2004/0249178 A1 | 12/09/2004 | Vargeese, et al. | | | 02/13/2004 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|-----|-----------------|------|---------|-------|----------|-------------|----|
| | REF | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
| | | | | | | | YES | NO |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| OTHER DOCUMENTS | | | (Including Author, Title, Date, Pertinent Pages, Etc.) |
|-----------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| | A4 | Saghir Akhtar, ANTISENSE TECHNOLOGY: SELECTION AND DELIVERY OF OPTIMALLY ACTING ANTISENSE OLIGONUCLEOTIDES, Journal of Drug Targeting, Vol. 5, No. 4, pp. 225-234, 1998 | |
| | A5 | M. Ballico, et al., TRIPLE, MPEG-CONJUGATED, HELIX-FORMING OLIGONUCLEOTIDES (TRIEGXs):..., Bioconjugates Chem. 12, pp. 719-725, 2001 | |

| | |
|----------|-----------------|
| EXAMINER | DATE CONSIDERED |
|----------|-----------------|

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

| | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--|-----------------------------------------|--|
| INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i> | | Docket Number (Optional) 213.1152-CIP | | Application Number 10/822,205 | |
| | | Applicant(s) Hong Zhao, et al. | | | |
| | | Filing Date April 9, 2004 | | Group Art Unit 1653 | |
| | | | | | |
| *EXAMINER INITIAL | OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i> | | | | |
| A6 | Gian Maria Bonora, et al., SYNTHESIS AND CHARACTERIZATION OF HIGH-MOLECULAR MASS..., Bioconjugate Chem., Vol. 8, pp. 793-797 | | | | |
| A7 | G. M. Bonora, et al., SYNTHESIS BY HIGH-EFFICIENCY LIQUID-PHASE (HELP) METHOD OF OLIGONUCLEOTIDES..., Biological Procedures Online, Vol. 1, No. 1, May 14, 1998 | | | | |
| A8 | Gian Maria Bonora, et al., HELP (HIGH EFFICIENCY LIQUID PHASE) NEW OLIGONUCLEOTIDE..., Nucleic Acids Research, Vol. 18, No. 11, pp. 3155-3159, 1990 | | | | |
| A9 | Gian Maria Bonora, et al., ANTISENSE ACTIVITY OF AN ANTI-HIV OLIGONUCLEOTIDE CONJUGATED TO LINEAR..., Elsevier Science S.A., 11 Farmaco, Vol. 53, pp. 634-637, 1998 | | | | |
| A10 | Traian V. Chirila, et al., THE USE OF SYNTHETIC POLYMERS FOR DELIVERY OF THERAPEUTIC ANTISENSE..., Biomaterials, Vol. 23, pp. 321-342, 2002 | | | | |
| A11 | Francesco P. Colonna, LARGE SCALE H.E.L.P. SYNTHESIS OF OLIGODEOXYNUCLEOTIDES..., Tetrahedron Letters, Vol. 32, No. 27, pp. 3251-3254, 1991 | | | | |
| A12 | Andres Jäschke, et al., AUTOMATED INCORPORATION OF POLYETHYLENE GLYCOL INTO SYNTHETIC..., Tetrahedron Letters, Vol. 34, No. 2, pp. 301-304, 1993 | | | | |
| A13 | Andres Jäschke, et al., SYNTHESIS AND PROPERTIES OF OLIGODEOXYRIBONUCLEOTIDE..., Nucleic Acids Research, Vol. 22, No. 22, pp. 4810-4817, 1994 | | | | |
| A14 | Ji Hoon Jeong, et al., NOVEL POLYMER-DNA HYBRID POLYMERIC MICELLES COMPOSED..., Bioconjugate Chem, Vol 12, pp. 917-923, 2001 | | | | |
| A15 | Takeo Kawaguchi, et al., STABILITY, SPECIFIC BINDING ACTIVITY, AND PLASMA CONCENTRATION..., Biol. Pharm. Bull., Vol. 18(3), pp. 474-476, 1995 | | | | |
| A16 | E. Liang, et al., OLIGONUCLEOTIDE DELIVERY: A CELLULAR PROSPECTIVE, Department of Pharmaceutics, Pharmazie, Vol. 8, 1999 | | | | |
| A17 | Valentina Rapozzi, et al., ANTIGENE EFFECT IN K562 CELLS OF A PEG-CONJUGATES..., Biochemistry, Vol. 41, pp. 502-510, 2002 | | | | |
| EXAMINER | | DATE CONSIDERED | | | |
| <p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p> | | | | | |

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Docket Number (Optional)

213.1152-CIP

Application Number

10/822,205

Applicant(s)

Hong Zhao, et al.

Filing Date

April 9, 2004

Group Art Unit

1653

*EXAMINER
INITIAL

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

A18

Burckhard Seelig, et al., SITE-SPECIFIC MODIFICATION OF ENZYMATICALLY SYTHESIZED RNA: TRANSCRIPTION..., Tetrahedron Letters, Vol. 38, No. 44, pp. 7729-7732, 1997

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.